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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/341,339	08/30/1999	Tadashi Aiura	AK-284XX	5010

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WEINGARTEN, SCHURGIN, GAGNEBIN & LEOVICI LLP
TEN POST OFFICE SQUARE
BOSTON, MA 02109

EXAMINER

SHAKERI, HADI

ART UNIT PAPER NUMBER

3723

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/341,339	AIURA ET AL.	
	Examiner	Art Unit	
	Hadi Shakeri	3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 5,6,8,11-14 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4,7,9,10 and 15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: <u>070899</u> | 6) <input type="checkbox"/> Other: ____ |

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DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group II in the reply filed on May 26, 2004 is acknowledged. The traversal is on the ground(s) that search required for the groups does not impose an undue burden. This is not found persuasive because as indicated in the previous office action, the groups are related as process and apparatus. It also indicated that for process and apparatus groups if the method can be practice with other apparatus or if the apparatus can be used to practice for other processes, the groups are subject to restriction (MPEP § 806.05(e)). In this case the process as claimed can be practiced by another materially different apparatus, e.g., one not requiring a coaxial external tube supported downward along the vertical direction to free-rotatably support the rotating axis (e.g., as in claim 5). The search required for group II is not required for group I, e.g., class 451/340.

The requirement is still deemed proper and is therefore made FINAL.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because of undue length. Correction is required. See MPEP § 608.01(b).

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4. The application includes terminology which is different from that which is generally accepted in the art to which this invention pertains causing undue ambiguities. For example: rotating axis **4** (rotating shaft?); restricting sleeve **17** (guide sleeve?); free ring mechanism **16**, **19** (work support?)...

Applicant is required to provide a clarification for these terms. Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-4, 7, 9 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors, e.g., claim(s) 1 (4), "the tip of a rotating axis" as recited 8 (10) is indefinite as written, it also lacks sufficient antecedent basis; claim 4, "the axial center", line 5; "the vertical direction" should be positively recited, since it depends on the orientation of the tool, e.g., the apparatus comprising a platform extending in a plane parallel to the plane of the horizon, an upright frame normal to said platform...

Further regarding "a long sized workpiece" as recited is indefinite for being a relative term. The term "long size" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be

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reasonably apprised of the scope of the invention. In fact drawings would appear to indicate a relatively "short" workpiece relative to, e.g., an eight feet pipe section.

8. Regarding claims 9 and 15, the language as written renders the claims indefinite, for it is unclear what elements are being claimed. Is applicant claiming the silicon tube (plastic tube!) wrapped around the external tube (3) being placed in a hollow portion (grooves?) Applicant should also refer to the specification as originally filed providing support for this limitation, i.e., hollow portion or the grooves housing the plastic tube. The disclosure and these claims are not objected to or rejected under 112, 1st paragraph for insufficient support, since the scope at this point is unclear.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1- 4, 7 and 10 (as best understood) are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Applicant's Admitted Prior Art (AAPA).

As admitted by the Applicant, e.g., page 4, lines 12-16, electrolytic integrated polishing is used to finish long sized pipes to a surface roughness of 1 micron and roundness to 10 microns or smaller. It is also admitted that the conventional apparatuses, i.e., axial direction horizontally oriented, in which the tool electrode and the work are rotated and relatively moved are utilized to polish the external surface of a tube, which is considered meeting the limitations as recited, however, in the alternative it would have been obvious to modify the apparatus of AAPA to set up vertically, for a smaller footprint in order to save space, a modification well within the

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knowledge of one of ordinary skill in the art, to polish the internal surface of a cylindrical portion of a long size cylindrical workpiece (a relative term).

Regarding claim 7, the claim as best understood is considered met, however, bushings, collars, work-guides or rotary bearings to support the workpiece or work/tool supports are known and used in the art.

Further regarding the product by process, i.e., claim 10, AAPA meets all the limitations, since product-by-process claims are not limited to the manipulations of the process steps, only the structure implied by the steps, thus a device produced by the method of prior art, would meet all the structural limitations, i.e., desired finish. (See MPEP 2113 [R-1])

Conclusion

11. Prior art made of record and not relied upon are considered pertinent to applicant's disclosure. Akagi, Imamura, et al., Nagel, et al., Menzel, et al., Grimes, et al., Farin et al., Indge are cited to show related inventions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hadi Shakeri whose telephone number is 703-308-6279. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail, III can be reached on 703-308-2687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Hadi Shakeri', with a stylized flourish extending to the right.

Hadi Shakeri
Primary Examiner
Art Unit 3723
August 11, 2004